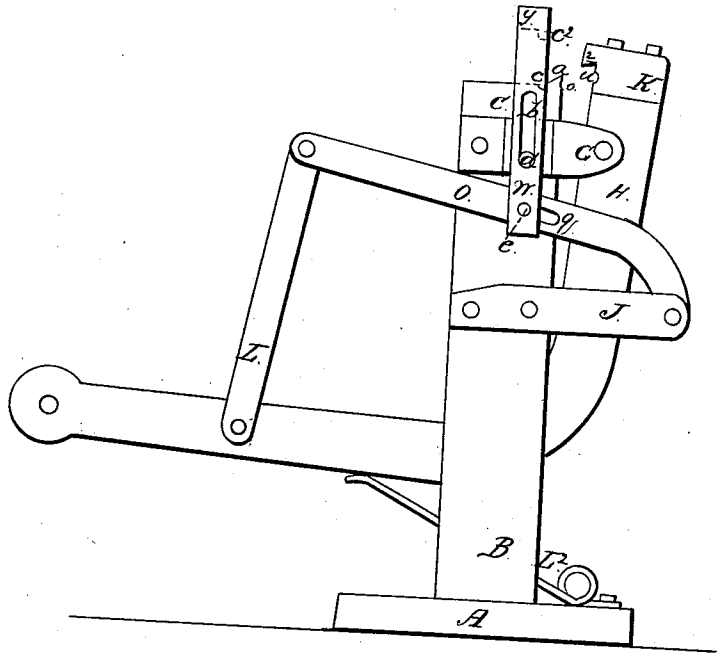
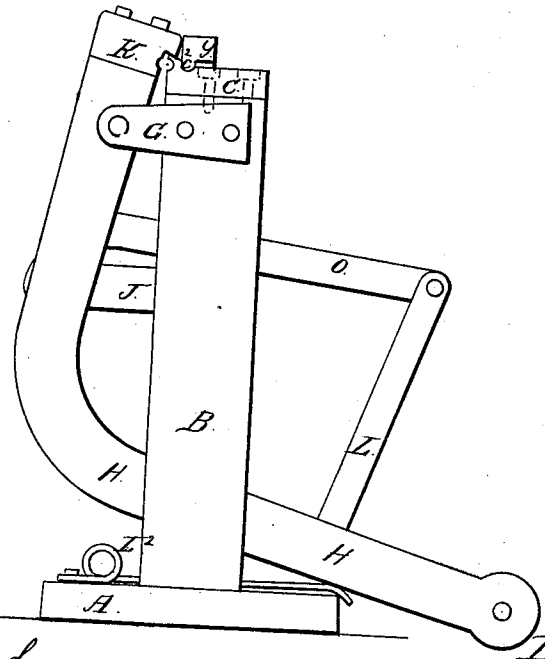
J. Siddons.

Making Ferrules and Rings.

No. 84,311. Patented Nov. 24, 1868.





Witnesses.
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JOHN SIDDONS, OF ROCHESTER, NEW YORK.

Letters Patent No. 84,311, *dated November* 24, 1868; *antedated November* 7, 1868.

IMPROVEMENT IN RING-FERRULING MACHINE.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JOHN SIDDONS, of the city of Rochester, in the State of New York, have invented a new and useful Ring-Ferruling Machine; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, making part of this specification, in which—

Figure 1 is a side elevation, showing the relative position of the different parts before it is operated.

Figure 2 is a side view, showing the different parts at the time of performing their several operations.

Like letters of reference indicate corresponding parts.

To enable those skilled in the art to make my machine, I will proceed to describe its construction and operation.

On a suitable base, A, I erect a standard, B, on the top of which I bolt a steel die, C. One edge, *a*, is raised up and made sharp; and on top of the die C, near the raised sharp edge *a*, I form a half-round groove, *c*, running parallel with it, shown in fig. 1 in dotted lines, and fig. 2 in full lines. I also form a half-round groove, *o*, on the inside of the die C, and immediately under the sharp edge *a*.

On the sides of the top part of the standard B, I fasten two arms, G, between which I pivot a bent lever, H, as shown in the drawings, in which I bolt a steel die, K, which has a sharp edge, *v*, and on the inside of the die K, and immediately under the sharp edge *v*, I form a half-round groove, *u*. I also, on one side of the standard B, fasten an arm, J, to the outer end of which I attach a lever, O, and extending forward towards the horizontal part of the lever H, to which it is connected by a rod, L.

To the lever O, I pivot an upright slide, W, by a pin, *e*, working in a slot, *q*, and it is also held fast to the upright, B, by a pin, *d*, working in a slot, *b*, and is guided in its up-and-down motion, as it works in a groove in the arms G.

On the top of the upright slide W, I fasten an arm, *y*, extending over the top of the upright standard B, having on its under face a half-round rib, c^2, running lengthwise.

Under the horizontal part of the bent lever H, I put a spring, L^2.

The object of this machine is to put metal ferrules on rings

Its operation is as follows:

A piece of sheet-metal of the desired width is put between the arm *y* and die C. The lower end of the lever H is depressed, and forces down the arm *y*, and forms a groove in the metal. The ring is then put on to the strip of metal, and it is then passed over the sharp edge *a* of the die C, until the ring is suspended between it and the bent lever H, the horizontal part of which is then pressed down, and the sharp edge *v*, passing over the sharp edge *a*, cuts off sufficient metal to lap around the ring, and the piece thus cut off is folded around the ring by being pressed between the half-round grooves *o* and *u*, and the arm *y*, at the same time, comes down and presses the metal into the groove *c*, and forms a crease in it, ready for another ring.

Any desired shape can be given to the ends of the metal, by giving the shape wanted to the sharp edges *a* and *v*, and can be made any desired length by putting the grooves *o* and *u* down the required distance from the edges *a* and *v*, and adjusting the groove *c* correspondingly on the die C.

The spring L^2 forces the lever H up after it has been depressed.

The dies K and C are made detachable by taking out the screws by which they are fastened, the one to the lever H and the other to the upright, B, for the purpose of repairing.

What I claim as my invention, and wish to secure by Letters Patent, is—

1. The lever O, upright slide W, and arm *y*, with its swaging-rib c^2, in combination with the grooved die C, all constructed and arranged as and for the purpose set forth.

2. The combination of the cutting and forming-dies, C, c^2, and K, constructed and operating substantially as shown and described.

JNO. SIDDONS.

Witnesses:

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